



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ronald O'Connell
Serial No. : 09/827,985
Filed : April 6, 2001
For : METHOD OF JOINING CURRENT
COLLECTORS IN A MULTI-LAYER
CELL

Confirmation No. : 5185
Examiner : Gregg Cantelmo
Art Unit : 1745
Attorney Docket : PD7323US

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AFFIDAVIT UNDER 37 C.F.R. 1.132

1. The undersigned, Michael A. Centanni, has a:
 - Doctor of Philosophy degree in Condensed Matter Physics, with a Minor in Mathematics and Physical Chemistry from Rensselaer Polytechnic Institute;
 - A Masters of Science degree from Rensselaer Polytechnic Institute, and
 - A Bachelor of Engineering Science (physics major) from Cleveland State University, Fenn College of Engineering.

2. The undersigned was a research and senior research scientist from 1977 to 1990 with the following companies: BF Goodrich Corporation, Sherwin-Williams Company and Ferro Corporation.

3. The undersigned is also a registered patent attorney, having been admitted to the Ohio State Bar in 1984 and admitted to the U.S. Patent Office Bar in 1990.

4. The undersigned, from 1984 to present, has been a lecturer, Department of Physics, Cleveland State University, and lecturer, Department of Physical Sciences, Cuyahoga Community College.

5. The undersigned has reviewed the above-identified U.S. Patent Application Serial No. 09/827,985 entitled: METHOD OF JOINING CURRENT COLLECTORS IN A MULTI-LAYER CELL (hereinafter referred to as “the ‘985 application”).

6. The undersigned has reviewed U.S. Patent Application Publication No. 2002/0081491 to Gross, Japanese Publication No. 2000/311665-A, European Publication No. EP1045466 A1, and Japanese Reference JP 2000-311713-A, that were cited by the Examiner in the ‘985 application.

7. From a scientific and physics point-of-view, a multi-cell battery formed in accordance with the teachings of the ‘985 application would be unlike a cell formed in accordance with any of the aforementioned cited prior art.

8. A multi-cell battery formed in accordance with the teachings of the ‘985 patent, namely, one in which the current collector tabs are collected and welded together at a location offset from the cell body, as indicated in FIGS. 6A-6D of the ‘985 application, would produce a tab weldment that is visually and physically different from a tab weldment formed in accordance with the aforementioned cited prior art.

9. Physically, a tab weldment formed in accordance with the teachings of the ‘985 application would show different lengths between the tab weldment and the cell body for each of the current collector tabs as compared to a tab weldment formed in accordance with the teachings of the prior art.

10. Further, less stress would be exerted on the lowermost layers of current collector tabs when folded into a generally U-shaped configuration, as illustrated in FIG. 6D of the '985 application, as compared to structures shown in the cited prior art.

11. I believe that all statements made herein of my knowledge are true, and believe that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements and the like so made may jeopardize the validity of the above-identified patent application or any patent issuing therefrom.

Date: August 19, 2004

Michael A. Centanni
Dr. Michael A. Centanni